



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,150	12/05/2005	Eisuke Hori	2271/75585	9064
23432	7590	10/21/2008	EXAMINER	
COOPER & DUNHAM, LLP 1185 AVENUE OF THE AMERICAS NEW YORK, NY 10036				VO, ANH T N
ART UNIT		PAPER NUMBER		
2861				
			MAIL DATE	DELIVERY MODE
			10/21/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/559,150	HORI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Anh T.N. Vo	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 12 August 2008.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 6-11, 19, 20, 23 and 55-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 6-11, 19, 20, 23, 56, 59 and 62 is/are rejected.
- 7) Claim(s) 55, 57, 58, 60, 61 and 63 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 8/28/08 and 8/12/08.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_.

***Final Rejection***

***CLAIM REJECTIONS***

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-11, 19-20, 23-24, 56, 59 and 62 are rejected under 35 USC 103 (a) as being unpatentable over Ohashi et al. (US Pat. 6,712,460) in view of Sasaki (US Pat. 6,270,207).

Ohashi et al. disclose in Figures 1, 6A-8 and 16 an ink cartridge for an ink jet printer comprising:

6. a liquid container (200) comprising a container main body (222) that forms a liquid accommodating portion for accommodating the liquid (217) (Figure 6A);  
a flexible film member (201) that is attached to the container main body (222) and is configured to seal an opening of the liquid accommodating portion (Figure 6B);  
and an air flow path (205) that is formed at the container main body (222) and is adapted to discharge air from the liquid accommodating portion; wherein the air flow path (205) includes a flow path portion that does not have a wall formed by the flexible film member (201) (Figures 6A-6B).

7. wherein the air flow path (205) includes a trench (215) formed at the container main body (222), and a through hole (214) that is formed at a wall blocking a portion of the trench (Figure 6A).
8. wherein the through hole (214) is formed at a position that is detached from a flow path edge line formed by the trench (215) and the film member (201) (Figure 6B).
9. wherein a length of the through hole (214) is arranged such that the liquid (216) does not pass through the through hole (217) when the liquid container (200) is in use and vibration occurs (Figure 6A).
10. wherein a diameter of the through hole is arranged such that the liquid (216) does not pass through the through hole when the liquid container is in use and vibration occurs (Figures 6A and 7-8).
11. wherein the air flow path (205) includes an accumulation portion that accumulates liquid entering the air flow path (Figure 6A).
19. a liquid container (1 or 200) including a container main body (222) that forms a liquid accommodating portion for accommodating the liquid, a flexible film member (201) that is attached to the container main body (222) and is adapted to seal an opening of the liquid accommodating portion, and an air flow path that (205) is formed at the container main body (222) and is adapted to discharge air from the liquid accommodating portion, and a liquid supply unit (main tank 57 ) for supplying liquid to the liquid container (1 or 200); wherein the air flow path (205) includes a flow path portion that does not have a wall formed by the flexible film member (201) (Figures 1 and 6A-6B).
20. an atmospheric release unit (52) for opening the air flow path of the liquid container (1 or 200) to the atmosphere (Figure 1).
23. a liquid supply apparatus that includes a liquid container (1 or 200) having a container main body (222) that forms a liquid accommodating portion for accommodating the liquid, a flexible film member (201) that is attached to the container main body (222) and is adapted to seal an

opening of the liquid accommodating portion, and an air flow path (205) that is formed at the container main body and is adapted to discharge air from the liquid accommodating portion (Figures 1 and 6A-6B); and

a liquid supply unit (57) for supplying liquid to the liquid container (1 or 200), wherein the air flow path (205) includes a flow path portion that does not have a wall formed by the flexible film member (201) (Figures 1 and 6A-6B).

24. wherein the liquid container (1 or 127) of the liquid supply apparatus is installed in a carriage (2 or 130) that implements the recording head (133) (Figures 1 and 16).

However, Ohashi et al. do not disclose the air flow path includes a plurality of trenches formed at the container main body, and a through hole that is formed at a wall separating the trenches, a liquid introduction path for introducing liquid into the liquid container in a downward direction, wherein said liquid introduction path is separate from the air flow path.

Nevertheless, Sasaki discloses in Figures 2-3 and 10 an ink cartridge (1) comprising the air flow path includes a plurality of trenches (11, 11a) formed at the container main body (2), and a through hole (28) that is formed at a wall (29) separating the trenches and a liquid introduction path (10a) for introducing liquid into the liquid container (5) in a downward direction, wherein said liquid introduction path (10a) is separate from the air flow path (11) (Figure 3).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Sasaki in the Ohashi et al. ink cartridge for the purpose of reducing the pressure inside the ink cartridge.

***Response to Applicant's Arguments***

The applicant's arguments with respect to the prior art rejection have been carefully considered and have been traversed in view of the new grounds of rejection over Sasaki et al reference.

***Allowable Subject Matter***

Claims 55, 58 and 61 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record shows or suggests a liquid container comprising each of the trenches that has a wall formed by the flexible member in the combination as claimed.

Claims 57, 60 and 63 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record shows or suggests a liquid container comprising an air flow path that includes a plurality of flow path portions, each portion having a wall that is formed by the flexible film member, and wherein the flow path portions are coupled by another flow path portion, and the another flow path portion does not have a wall formed by the flexible film member in the combination as claimed.

***CONCLUSION***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo. whose telephone number is (571) 272-2262. The examiner can normally be reached on Monday to Friday from 9:00 A.M.to 5:30 P.M. The fax number of this Group 2861 is (703) 872-9306.

/Anh T.N. Vo/

Primary Examiner, Art Unit 2861

October 16, 2008